/345 cont./

423 428 [428] 198 Outside these official expeditions they doubtless used to hunt for pleasure or simply to interrupt the monotony of their menu.

224 411 Quadrupeds were killed with arrows with lanceolate tips, originally of wood, today of iron (Plates VIII and IX, 2); small game, with arrows tipped with a barbed wooden rod [223] (Plate IX, 3-5). Birds were taken in traps or felled with a special arrow having a splayed ferrule (Plates X-XI).

224 [231] Anyone who has seen the little dogs of the Chiriguano Indians, with elongated /346/ muzzle, pointed ears, short hair, and arched tail will ask with surprise how animals so miserable, stupid, and mappish could have been trained to render service to man. Nevertheless, such seems to have been the case. For hunting the peccary, for example, the Indians employ the dogs, who track them and /Figs. 12 and 13 appear here/ force them to hide in their dens, from which they are smoked out and felled with blows of a stick when they try to run away. At least this is how the inhabitants of the village of Saladito (upper Pilcomayo) told me they had killed a peccary which they showed me at the time I was there.

423 232 224 184 For the modern Chiriguano, hunting has lost its reason for existing as an activity having an economic character, except perhaps /Plates VIII, IX, X, and XI appear here/ /347/ /Fig. 14 appears here/ for those of this nation who live [352] [412] in the region of the upper Pilcomayo. At least this is the impression I had after examining their huts: the bedsteads or wooden cots were often covered with peccary skins and the old deerhorn awls (Fig. 12) numerous enough to be able to be exchanged for a trifle. The relative abundance of these objects proves that among these Indians hunting has not been relegated /Fig. 15 appears here/ to the rank of a simple sport and that it keeps, at least in part, its past importance. [419] The contrast is striking if one then goes into the zone of the Franciscan missions: there, more peccary skins, more [411] perforators made of deerhorn, more ostrich feathers. In the villages of the upper Pilcomayo there is no cabin, poor as it may be, in which a bow and a bundle of arrows are not slipped

[Text Continues on P. 89]

/468 cont./

412 171 At La Paya, Ambrosetti (6, Fig. 254, p. 484) discovered combs cut out of a small wooden board and some composite combs. Instead of simply recording the coexistence of two different types of combs /Plate LXXXVII appears here/ /469/ in the same place, a very natural phenomenon by reason of the heterogeneous character of the culture of La Paya, Ambrosetti puts forth the strange hypothesis that these combs served for carding wool, without taking the trouble to inquire whether this instrument was known in pre-Columbian times.

303 322 467 412 The making of combs, like all wood carving, is an essentially masculine job.

412 174 The table on Plate LXXXVII indicates my idea of the morphological evolution of the different forms of combs which I have collected.

Chapter XII

Furniture

352 [114] Since the diverse cultural elements which constitute the furniture of the Chiriguano have been completely studied by Nordenskiöld (10, pp. 8-22), I shall limit myself to mentioning them here, insisting only on several details. /Fig. 124 appears here./ /See p. 338./

[342] Let us enter a Chiriguano hut. The door we open is a kind of screen of reeds or a cowhide hardened in the sun. Daylight penetrates the interior through this opening. The only important [513] piece of furniture is a wooden cot (Fig. 125), a kind of bedstead generally occupied by two persons between whom one or two children come /470/ to slip in somehow or other. Nor do the Chiriguano hesitate to sleep on the ground on an oxhide, which they spread out in front of their house. On the upper Pilcomayo, in nearly all the huts one can /Fig. 125 appears here/ /See p. 339./ see one or two hammocks which serve either as seats during the day [286] [177] or as cradles for small children. Their technique; that of the double thread (Doppelfadentechnik), continues an old Guarani

[Text Continues on P. 338]

/470 cont./
352 and Arawak tradition. Some hammocks, not many, are crudely
[286] woven. The threads which /Fig. 126 appears here/ compose
[179] them are of wool; formerly they were doubtless of cotton (Plate XXXVIII).

352 It is a delicate business to persuade a Chiriguano mother to
854 sell you the hammock of her nursling. She fears that an /Plate
754 LXXXVIII appears here/ /471/ evil-intentioned person will profit by the fact that the fabric is impregnated with urine, in order to indulge in magical practices which would make the new-born child die.

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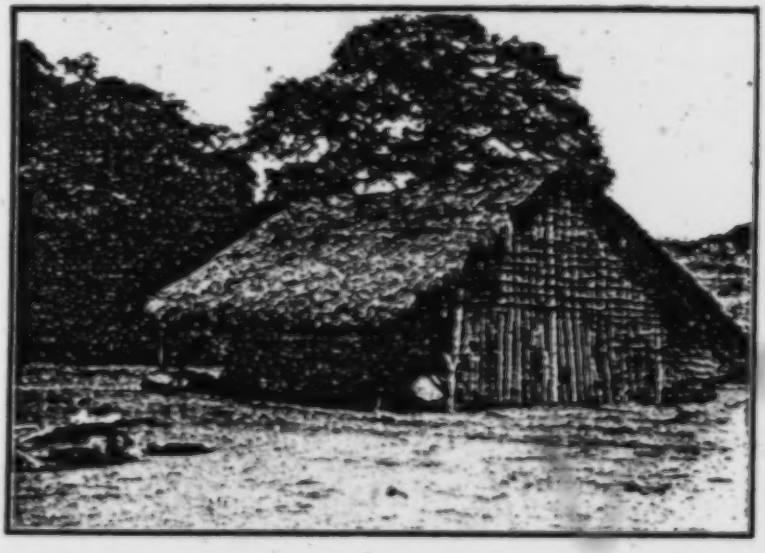

Fig. 124. Chiriguano hut. Saladito (upper Pilcomayo). (Photo. A. M.)

353
[415] Along the walls are lined up vessels of all dimensions which /Figs. 127 and 128 appear here/ are kept there for the drinking feasts; some contain seed, others serve as linen cupboards or provision bags. On the walls, generally in the four
[352] corners, hang reed screens or hoops made of palm leaves /Fig. 129 appears here/ which take the place of shelves (Figs. 126 and 129).

[TEXT Continues on P. 342]

•352

Fig. 125. Wooden cot (catre), Chiriguano Indian bed. Prov.: Ivu. (About 1/6 nat. size /sic/.)

[286]

Fig. 126. Hoop made of vegetable fibers, to serve as a shelf. (About 1/8 nat. size.)

Plate LXXXVIII

Chiriguano hammocks of wool. From: 1, Saladito; 2, Tintapaw (upper Pilcomayo).
Note: Hammock No. 2 is woven.

1: Métraux--340 E-5 (1929) 1930 SF10 Chiriguano SF10

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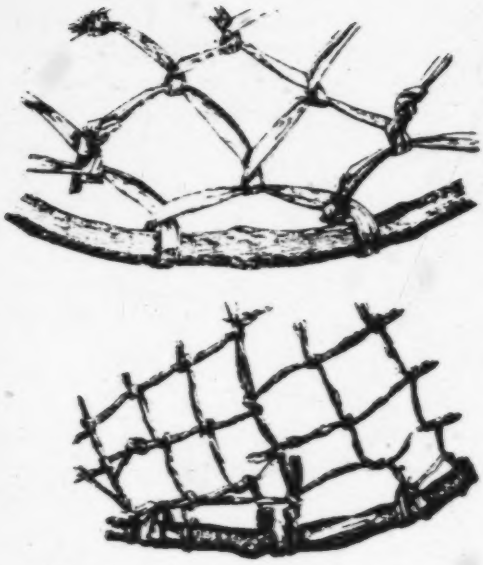

Fig. 127. Sketch indicating the technique of the hoops of the type of the one in Figure 126.

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Fig. 128. Deer foot dried in the sun to serve as a hook for hanging. Prov.: Saladito. (About 1/5 nat. size.)

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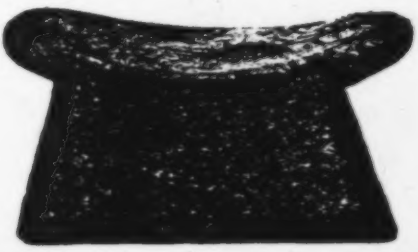

Fig. 129. Double-runnered bench. Prov.: Ibopeyti. (About 1/7 nat. size.)

/471 cont./

353 and 127): Everything in the world can be found there: small vessels, baskets, boxes, packages carefully wrapped in cloth, in short, a thousand little objects which the Chiriguano women regard as their treasure. From the roof hang hooks from which [414] are suspended household effects or supplies. These hooks are [237] generally of wood, but there are some also which are formed by a deer foot bent back and dried in the sun (Fig. 128).

Every chink in the walls is transformed into a hiding-place where the women put their scissors, the men their knives or combs. /472/ Bows and arrows are slipped between the struts of the roof.

In some huts whose walls are plastered with earth, the Indians arrange niches in the shape of swallows' nests, which serve as rudimentary cupboards. Might there be in that a distant remembrance of the niches so characteristic of Inca houses? It is possible.

352 The inhabitants of each hut sit on the cots or on /Figs. 516 130-132 appear here/ chairs with backs very well copied from [179] those of the creoles. The women generally squat on the ground. [178] On the upper Pilcomayo, one still finds benches with two seats (Fig. 129), a cultural element which the Chiriguano inherited from their ancestors of the Amazon basin.

356 The fire for cooking is lighted in the middle of the hut. [354] Chiriguano dwellings are clean. I have never caught fleas or other vermin there as I have in the ranchos of creoles or half-breeds. The women sweep their huts at least once a day. One is rarely disturbed there by mice (Fig. 132).

2:Métraux E-5 (1929) 1948 SF10 Chiriguano SF10

252 415 412 264 [317] [263] *Chiriguano* mortars are of the cylindrical type; the pestle is long and heavy. Maize flour is sifted in round basket sieves very similar to those used in the rest of tropical South America. Meat is boiled or broiled on a spit; the babracot is conspicuously absent. Food is served in clay bowls and more rarely in wooden dishes, and eaten with wooden spoons. Salt is extracted from mines near San Luis, or obtained by evaporating the water of salty brooks.

VILLAGES AND HOUSES

342 178 592 **Dwellings.**—Until the 17th century, the *Chiriguano* built large communal houses, "150 feet [46 m.] long," in which many families lived together, each occupying the space between two wall posts (Lizárraga, 1909, p. 552). A hundred years later they were lodged, as they are now, in small rectangular houses, with a steep gable roof and wattle-and-daub walls. Sometimes the roof projects in front to form a small veranda. A house belongs either to a single biological family or to two or three closely related families, generally parents with their married children.

361 178 [343] [712] The ancient villages were composed of three to five long houses, grouped around the plaza. Modern villages also have a central plaza. A storehouse is built on piles near each dwelling and serves to protect crops against rats and dampness. Like the settlements of their Paraguayan ancestors, some ancient *Chiriguano* villages were protected by a single or double palisade.

352 **Household furniture.**—The *Chiriguano* sleep on platform beds of reeds and use their woolen or cotton hammocks to recline on during the day or as cradles for babies. The typical *Chiriguano* hammock is made of long warp threads twined together at set intervals by weft strands; a few caraguatá specimens are made in a net technique. Other items of furniture are benches carved of a single piece of wood, large vessels to store clothes and food, and crude shelves hanging from the roof. A tree trunk with three radiating branches serves as supports for vessels or for piles of corn.

DRESS AND ADORNMENT

291 177 **Clothing.**—*Chiriguano* men, wearing only a G string (chiripá), were a common sight before shirts and pants came into general use. The cotton tunic (cushma), which was adopted from the *Quechua* after the *Chiriguano* migrations, disappeared long ago, but the poncho, a more recent acquisition, is still popular. As early as the 18th century, *Chiriguano* horsemen, in true Spanish style, wore skin breeches and leather coats. They wear sandals when they have to walk over stony ground or through thorny bush.

/21 cont./

137 824 MARA or CAOBA /mahogany/. -- This tree is found in all sections. It is a strong wood, but the white part at the sides is subject to decay. It is rather heavy and hard and is [342] [352] only used for door and window casings and even for tables. The leaves are permanent, but not too good for shade. If the [957] leaves are touched with some force in order to pick them, they cause a skin eruption which disappears only when treated with bees' honey; I cured myself this way twice.

137 /22/ MELOCOTÓN /peach tree/. -- This tree, native to Persia, is quite productive in this region, but its fruit, severely attacked by the black butterfly, does not reach maturity because it always has worms. The apple tree grows in high places and where the atmosphere is not so hot, but both of these are orchard trees, not native ones, having been imported by the whites, who cultivate them, which can also be said of the quince tree.

137 824 MOLLE. -- This tree is not found in the central part of the region and thus is not native here, being obtained only by cultivation. The whites and the Missionaries have introduced it into the towns with good results. It is found in abundance in [957] the district under the jurisdiction of Padilla; it has permanent [2073] leaves, which are medicinal, as is the resin which comes from the trunk; a cooling beverage, pleasant and similar to wine, except that its odor is somewhat disagreeable, is made from [957] the seeds. The eucalyptus is another tree which thrives regularly here, but it has also been imported; its leaves, also permanent, are very good medicine for the endemic fevers; its trunk is an excellent wood. Neither tree has a name in Chiriguano, from which it can be deduced that they have been imported, like the grape vine, the common fig tree, the peach, quince, etc.

MORO OR MORERO /mulberry/. -- This tree is found wild from the left bank of the Parapiti River in Cordillera Province. It rises to a height of some 15 meters, is bulky with a very leafy top, and the fruit is smaller than that of the cultivated mulberry; the wood is solid and compact like that of the soto and has even better qualities; it is used for machines for milling sugar cane, plantations of which are common from the banks of the Parapiti River, where sugar of the highest quality

4: Nino--234 M-3 (1893-1911) 1912 SF10 Chiriguano SF10

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Partial View of Modern Chiriguano House

/178 con.t./

353 [356] Chiriguano towns attract the attention of all travelers and explorers because of the cleanliness which reigns in their houses, which, despite having a notable quantity of furnishings, are well kept up through the assiduous work of the mistress of the house. [415] [352] Jars with wide mouths are in the corners; those with narrow mouths, in which the chicha must ferment, lean vertically against the walls; the plates and spoons are on small triangular tables of hollow cane in the corners; small ollas are placed inside the empty large pots, and these in times of abundance, and even in times of scarcity, are full, some with shelled maize, others with beans and gourd seeds, and others with wool and cotton for making ponchos, blankets, or outer garments.

[824] [251] /179/ Above, at an appropriate height, they hang a mat of hollow cane or little sticks well tied together well with Ivi, or ceiba, and there they put other trifles or small things, when they do not have anything else to put there, such as cheeses and charqui, or dried meat. The mat is usually hung on one side of the house on one of the rafters by means of thongs of cowhide or other materia. They are placed there so as not to be in the way of those who must pass beneath (1).

[824]

1. The Ivi is a species of ceiba, samuu, but it does not have points like the latter. There is another called Cuari or Tayipiruru, which is very straight, has very strong fibers, and is only cut at the branches in order to pull off the bark. A fourth type of ceiba is called Iviru guasu: it is large and smooth. Each type has its congenial place, like every tree.

Finally, in the corners of the house or where it is most convenient, up high, they put one or more cords, which form an angle from one wall to the other, and there each member of the family puts his own clothing and the men hang the harness of their beasts of burden. Today the Chiriguano who are not lazy are not so poor, and when one enters a house one is amazed by all the abundance of furnishings so well arranged.

/179 cont./

512
356 With such an arrangement, it is not difficult for the Chiriguano woman, after having taken her bath, made her toilette, and put up her hair, to sweep her house in a few minutes, sweep the rest, put back in its place everything that has been used, to put the beds to the walls, put the coverings on the cords in the corners, and again prepare what is needed for cooking (2).

2. The ancient Chiriguano woman did it this way, because she got up very early; today, as she is beginning to be lazy, after having done everything, she goes to the spring, bathes, combs her hair, and carries water.

Cots and Seats

513 No matter how poor a Chiriguano may be, he seeks comfort for sleeping and does not sleep on the ground when he is at home, both in order to avoid sickness and to be free of poisonous animals which abound, such as the snake, the scorpion, and the tarantula, which strike horror just to look at them. Furthermore, they do not sleep on the ground in order to be free of the bite of other insects, such as the vinchuca and the guanaco in certain areas, but despite this their cots are /180/ full of other little coffee-colored bugs, known in every corner inhabited by man.

• 352
322 In order to avoid any such accident, one obtains the Igũirapempi, cot, by making it oneself. Cots are of hollow cane, little sticks, or split maguey sticks, which they call caruguata guasu. In order to make them, they first make a rectangular frame; in this four holes are made 40 centimeters in from the ends, into which four sticks are introduced vertically; these are the feet. Above are tied canes or sticks which are high at the top and bottom and deep in the middle, and this is the cot. At bedtime they are content with placing at the head some rag or piece of wood.

/180 cont./

352 The peculiarity of the Chiriguano cots is that they are almost always shorter than the persons who must sleep on it; most of them measure one meter 60 centimeters. They perhaps have [513] this peculiarity because they sleep curled up like pigs in order to hold together better the little clothing or blankets that they [178] possess. Today they are beginning to make them longer and [237] to have cots like the whites use; the open part of the latter is closed with cowhides which they attach first lengthwise and then at the sides, equidistantly about every seven or eight centimeters, with many small squares being the result (1).

1. The cots which are made with split agave sticks are soft and preferred; in the Ivu Mission almost all make them of this material.

574 The Chiriguano man does not like to sit on the ground either;
576 when he is visiting, it would be an insult to make a man sit on
516 the ground; nevertheless for a gathering of friends they do sit
352 down where they wish and stretch out like dogs in the sun. For
322 the reception of visitors they have crude seats. They are of
[574] wood and called Apica. There are some with two places and up to four with their respective dividers; there are some for [412] men and even for children. They are of a single piece, and they are made by dint of much patience by hollowing them out with an ax. The tree should be a thick one so that the seat may have a little height and the occupant may not cut a ridiculous figure of a punchinello or clown, causing laughter [438] among the onlookers. They also use benches and chairs like [439] those of the whites; they make the latter for their own use [824] and to sell to their fellows and to the whites. The wood which they seek out for these labors is zacharrosa, because it is soft and easily worked with the tools that are available to the poor Chiriguano, who does not always have an adze and a chisel.
352 Some people also have /181/ hammocks, Quiha ó imi, but they are so old and black because of the action of the smoke that they arouse disgust (1).

524 1. For a children's game they hang in the

4: Nino--255 M-3 (1893-1911) 1912 SF10 Chiriguano SF10

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Cacique Gilirassa with His Family

/210 cont./

Infant Care

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352 For the newborn child to rest in, they have a kind of net which they hang at one end of the lodging. Its mother places it there when it sleeps, and she covers it with a piece of cloth so that the flies will not bother it. Some wool or cotton hammocks are crudely made /211/ by them, and these are called Ini ó quiha, the last term of which literally means quietness.

The mother almost never leaves her newborn child, and to go to the spring or to the river she takes advantage of the time when it is asleep, leaving it in the care of some person, even a little one. She cannot yet carry it in the folds of her clothing, because the child's tender limbs cannot bear such a position. Only when they have become somewhat stronger does the mother walk from one end of the town to the other, to the field, to the spring, without leaving her child at home, like weasels or like the kangaroos of Australia, who do not leave their young in the caves when they go out, making leaps like a jerboa.

147
854 The sun in the Chiriguano region is very hot and yet children exposed to its action do not feel its effects very much, if at all. They receive its rays perpendicularly, from in front, from all sides, and square on their faces, and it is as though they were in the shade. The only effect that it has on them is the copper color of the race, because experience has shown that this color is acquired (1).

142 1. The color of the newborn babies is rather strange: they look like mice. Many newborn babies are completely white, but not like Europeans: the difference between the former and the latter can be seen immediately.

4z Nimo--362 M-3 (1850-1911) 1913 SF10 Chiriguano SF10

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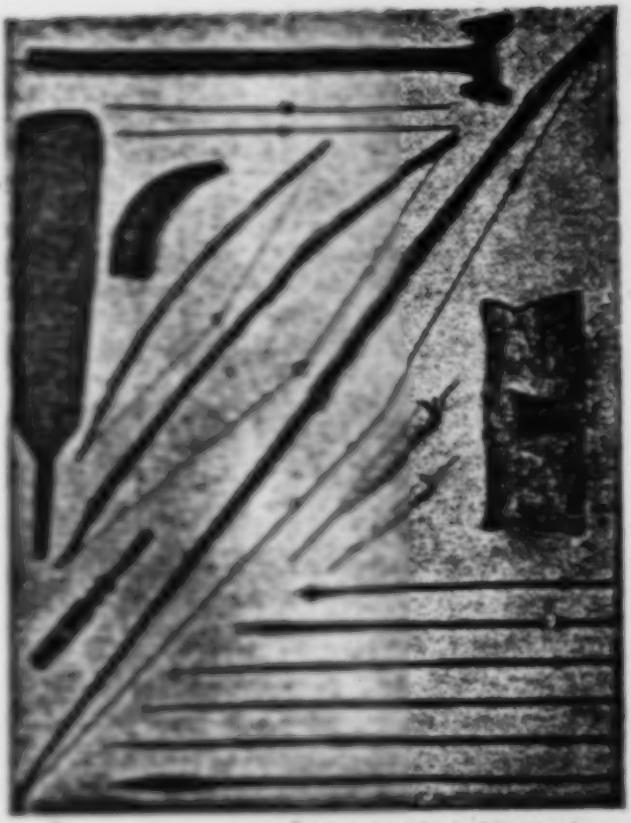

Bows, arrows, etc. /see p. 367 for additional explanation/.

4: Nino--352 M-3 (1893-1911) 1912 SF10 Chiriguano SF10

Explanation of the Preceding Illustration /see p. 368/

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1. Wooden spade for work.
2. Spade handle.
3. Bull's horn for blowing.
4. Implement for stirring food.
5, 6. Chiriguano spindles.
7. Chair or seat with two spaces for children.
8. A bow for adults.
9. Arrow with iron point.
10, 11, 12. Arrows with wooden point.
13. Bow for young people.
14. Arrow with two points for hunting and fishing.
15. "Songo," or arrow with rounded point for hunting small birds.
16. Bow for boys.
17, 18. Arrows for boys.

Chapter Thirteen

Illnesses, Remedies, Death, and Mourning

Introduction

One moment of reflection suffices for a man to understand that there is no true happiness on earth: he who can glory in being happy in this world finds many sorrows: unsatisfied desires, unexecuted orders, unfinished projects. The careless execution of injunctions constitutes thorns for the heart of the man who could call himself blessed. He would like everything to go along as he desires, and when this does not happen he suffers, and if he does not express his suffering he suffers much more (1).

> 1. It is a great relief for a man to be able to communicate his sufferings to a sincere friend, but it is difficult to find such, because he who has a friend has a treasure, and the treasure is a rare thing.

Schwedenstiftung E-4,5(1908-1909, 1912) 1920
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South American Indians 53

S 342 KEISE OF BAVARIA[1]) depicts numerous pile-buildings from the town of Guayaquil and its surroundings. On the lower Amazon the Indians and Mestizoes in general live in pile-buildings.[2])

II.

Beds and other fittings of the huts.

C Ce 352 177 The Chiriguano and Chané make use of platform beds as well as hammocks. The bedsteads are made of thick sticks, the underlay being covered with cane or long sticks. The most civilized Chiriguano also have bedsteads in which the underlay is made of plaited thongs — this having been learned from the Whites. I had always held that the platform bed was a culture-element which the Indians have obtained from the Whites. KARL v. D. STEINEN[3]) seems also to be of this opinion. This is not, however, correct, for the platform bed is a genuine Indian culture-element, which is worth closer study. Platform beds are mentioned as early as 1549 by PALOMINO[4]) from Chequimayo in N. Peru among quite unvisited Indians, and there is not the least reason to suppose that the platform bed

---

[1]) (2)

[2]) «Nos logares alagados de beira rio, como certas povoações do Amazonas entre o Para e Gurupá e em todo o litoral do archipelago de Marajó, ao menos na parte a O e SO d'esse archipelago, erguem as casas sobre palafitas á maneira das cidades lacustres dos tempos prehistoricos . . .» VERISSIMO P. 370.

[3]) (5) P. 73.

[4]) P. XLIX «Duermen en barbacoas sobre unos petates de caña.»

Smithsonian 8-4,5(1909-1910. 1913) 1910
1910 Chiriguano 1910
Chaco 1910
South American Indians 53

is a culture-element so coveted as in a few years to have spread from the Whites in Peru to the interior of the country. When the distribution of the platform bed is closely studied, it will be found that it is evidently a very old culture-element which remains in places where the hammock has not penetrated or has been found unpractical. In the land of the Chiriguano and Chané Indians it is often too cold to sleep in hammocks. A platform bed is therefore preferred by them, especially when they have clothes to put under and over them. Hammocks are few and are mostly used to recline upon during the day. I have endeavoured on the map to show the geographical distribution of the platform bed. The summary does not, however, pretend to be complete. Its aim is mainly to draw attention to a culture-element which has often been overlooked, and which gives one the impression of being older than the hammock by which it has been relegated to certain tracts, particularly on the eastern slopes of the Andes, where it is rather cold to sleep in hammocks, and rather uncomfortable to sleep on the ground, as is the custom up on the high hills or further to the south.

Table 2.

The platform bed (Cama). Map 2.

4. Chiriguano.
5. Chané. Fig. 2.
16. Quichua, Riobamba, Rivet (1) P. 60.
21. Caingué, Ambrosetti (7) P. 697.
22. Yuracaré.
23. Chunipa.
24. Chimane.
29. Caingang, Ambrosetti (1) P. 323. Is considered to be post - Columbian.
34. Jivaro, Rivet (1) P. 40.
35. Chimila, Brinton (4) P. 32.
36. Tyra. (4) P. 48. Only the mediterranean.

[Text continues on P. 12.]

Map. 2. The distribution of the platform bed (Catov

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SF10 Chiriguano SF10
Chaco SF8
South American Indians 53

61. The Aguaperis Indians, WHIFFEN P. 47.
71. Siguba, STEINEN (3) P. 75.
94. Chiquitos, *Litterae Societatis Jesu* 1594—1595. P. 754: BURGOS P. 343. The men have hammocks, the women platform beds. This implies that fixed bedstead here are more original than hammocks.
95. Chibcha, OVIEDO T. 2. P. 407.
IV. Guaná (Arawaks), AZARA (1) T. 2, P. 89.
3 H. Indians on the coast of Ecuador, BENZONI P. 245.
4 H. Camacans, MARTIUS (1) P. 345.
6 V. Guaná, CUNNINGHAME P. 178.
7 V. Indians of Choquimayo, PALOMINO P. XLIX. He made his journey in 1549.
8 M. Indians (Chamas), Sierra de Merida. SALAS P. 262.
9 P. Xeveso, CHANTRE y HERRERA P. 143. Mainas, SAAVEDRA P. CXLIV. «duermen en barbacoas ó cañizos con toldos.»

In the regions I visited it was only the Siriono, Huanyam and Huari who had hammocks of palm-fibre or bast. The other tribes who employ this form of bed have hammocks of cotton. The Chané hammocks are of cotton or caraguata[1])[2]). The Chiriguano have hammocks of cotton, occasionally of wool. IM THURN and K. v. d. STEINEN had already pointed out that, while cotton hammocks appear to be a Carib culture-element, the palm-fibre hammock is of Arawak origin. PATER SCHMIDT then thoroughly investigated the distribution of hammocks of various materials, confirming the theories of IM THURN and K. v. d. STEINEN and shewing, moreover, that the Guarani peoples, as a rule, have cotton hammocks.

[1]) In net-technique.

[2]) Arenas de la Compañía de Jesus. P. CIV. The author speaks of two kind of hammocks from these Indians. Probably one of them were of Caraguatá. I am not quite sure if he speaks of the Chané or the Chiriguano or of both: «hacen muy grandes palos y de ellos cuelgan sus hamacas, que son unas mantas grandes ó tejidos de algodon ó hechas de red.»

5:Nordenskiöld E-5,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8

RUTH HAEDLER, a pupil of MAX SCHMIDT, has endeavoured to shew that this is not correct. After examining a number of hammocks in German museums, she arrived at the conclusion that, in the majority of these, both palm-fibre and cotton had been used — palmfibre for the warp and cotton for the woof — and that the notion that the Arawaks have hammocks of palm-fibre only, while Caribs have only cotton hammocks, is wrong. For the rest, hammocks of mixed materials are also mentioned by PATER SCHMIDT, who thus devoted attention to this matter when he was investigating hammocks. ROTH, too, mentions from Guiana hammocks of bast with a woof of cotton. The fact really is that all the hammocks described as having a bast warp and cotton woof are from the Upper Xingú or from Guiana tracts, where there dwell Arawaks, Caribs and Tupi. If we study the appended map and table, which are based on very extensive material, we shall find that, within an immense region about the Amazon, the Indians use hammocks of palm-fibre exclusively, and that in the rest of S. America it is more especially the least civilized tribes, e. g. Siriono, Huari, Waika and others, who use bast or palm-fibre hammocks exclusively. On the coast of Brazil, the more civilized Tupi had cotton hammocks, while the less civilized tribes used palm-fibre. I would consequently account for the distribution of hammocks of different materials in the following way: — Originally the Indians in the whole of tropical S. America had hammocks of palm-fibre or bast exclusively. When the art of cultivating cotton spread from the west, many tribes began to use cotton hammocks or, in some districts, hammocks of palm-fibre with a cotton woof. Where cotton-growing remained unknown, or was inconsiderable, as among the Arawaks of N W Brazil, hammocks made entirely of palm-fibre were still used.

Which tribes spread the knowledge of cotton growing? Certainly not the Arawaks, who within large tracts

5:Nordenskiöld E-5,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8

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*171
283

do not even spin. It must, above all, have been the Tupi - Guarani. They are known for their manufacture of cotton hammocks. The Omagua who dwell (have dwelt?) in a tract where they and the Cocama are the only Tupi Indians, use hammocks both of palm-fibre and of cotton. All the neighbouring tribes have nothing but palm-fibre hammocks. Some Tupi at the Upper Xingú use palm-fibre hammocks with a woof of cotton. RUTH HAEBLER mentions two hammocks of bast from the Cainguá. Otherwise, the Tupi tribes use cotton hammocks, as has been pointed out by PATER SCHMIDT. The Caribs, too, have undoubtedly contributed to the spread of cotton-growing and the use of cotton hammocks, for it is very evident that in Guiana especially, they have used, and still use, cotton in their hammocks far more than the Arawaks. The distribution of cotton hammocks in S. America cannot be properly understood except in connection with the general history of the cultivation of cotton. It is highly probable that it was from the western area of civilization in S. America that the knowledge of cotton-growing spread over a considerable part of the continent. It is very likely that, in post-Columbian times, the practice of growing cotton has spread to a good many tribes who formerly were ignorant of it. We must remember that cotton has been grown at such mission-stations as in Mojos on a very large scale.

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[174]

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It must also be remembered that the history of the cultivation of cotton is of especial interest, because the cotton bush is one of the few cultivated plants that in pre-Columbian time were common to both the Old and New World. Consequently, it would be very interesting if we could prove that cotton was first used in S. America within the old culture areas, and there only after the Indians had reached a comparatively high state of civilization.

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[554]

It is not quite right to say that the hammock was not used within the culture-area of the west. It was used — not as a bed, but as a litter for persons of rank. This is

5:Nordenskiöld E-5,4 (1908-1909. 1913) 1920
SF10 Chiriguano SF10
Chané SF8

c ce 352 171* [554]

corroborated by the accounts of PEDRO PIZARRO and XERES, who were eyewitnesses of the conquest of the Inca empire. In the high mountain country it is natural that hammocks should not be used as beds. In such parts they would be too cold. It is harder to make out why hammocks were not used in the coastal regions of Peru.

Evidently the hammock in S. America is so old a culture-element that it is impossible to decide whence it came to the Chané and Chiriguano. The latter certainly, and most likely the former too, used hammocks when they settled in their present territory. The technique employed in most Chané and all Chiriguano hammocks is the same as, with small variations, is mostly used wherever hammocks occur.

It is possible that some tribes about the river Amazon preferred palm-fibre hammocks to cotton ones, because the former are cooler. Possibly, too, in these regions of moist heat, hammocks of palm-fibre are less liable to rot and to be attacked by insects than those of cotton.

I here append a map (3) showing the distribution of hammocks of different material after PATER SCHMIDT, with certain additions, as will be seen from table 3.

The seat so characteristic of the Indians in great parts of S. America is a rather uncommon piece of furniture in the huts of the Chiriguano and Chané (Fig. 3). Its distribution in S. America has been investigated by PATER SCHMIDT[1] and SAVILLE[2] wherefore I beg to refer to their works. In my own sphere of work I saw seats among the Quichua mestizoes at Calilegua, among the Mojo, Huari, Baure and Huanyam. The seat as a culture-element has its southern boundary here. It occurred, though rarely, among the Incas, where seats seem to have been the special privilege of the chiefs[3]). Most likely it is a culture-element which the Chané

c ce [127]

c ce [622]

[1]) P. 1088.
[2]) V. 2, P. 103.
[3]) Cobo Vol. 4, P. 172.

S:Nordenskiöld E-5,5(1908-1909, 1913) 1930
SP10 Chiriguano SP10
Chané SP8

received from their kinsfolk at Mojos, or they may even have brought it with them when they migrated to their present abode. Nowadays the Chiriguano and Chané commonly use chairs of the type they have learned from the whites. They are made by themselves in the missions.

I have a rush mat from the Chané. Both the Chiriguano and the Chané have skin mats. I have already spoken of such mats in Part I of this work. The skin mat is naturally a southern culture-element.

The Chiriguano and Chané keep their belongings either hung from the ceiling or else on the floor. Clothes and other fragile things are often kept in large earthen vessels — a method of keeping one's belongings which I have not seen anywhere else. Cieza[1]) says that the Incas kept their clothes in a similar way.

It is very common among the Chiriguano and Chané to fix wooden hooks in the roof of their huts on which to hang their belongings (fig. 4). Elsewhere I have only seen these hooks among the Chunipa. In the Gothenburg Museum there is a collection by Liljewalch and Thulin of hooks made by Indian tribes on the Roraima. The only mention of them that I am aware of in literature on the subject is from the Araucanians.[2]) Small articles of this kind are, of course, easily overlooked, wherefore it is not at present possible to draw a map of their distribution. This is to be regretted, as the distribution of such small objects would offer points of great interest. It seems to me not unlikely that the wooden hook is an Andine culture-element. Within my sphere of work the hook does not occur among other Indians than those mentioned here.

Small articles are kept by the Chiriguano and Chané in cloth and leather bags, wooden boxes, baskets, armadillo scales, the scrotum of bulls, and in calabashes with or without lids.

[1]) Cieza Vol. 4, P. 171.
[2]) Lafcadio (1) P. 358.

[Text continues on P. 222]

Schnebelmuseum E-6,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10 ●
Chaco SF8
South American Indians 53
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Map 3. Distribution of the hammock.

Hammock used as a bed.

● = of cotton, □ = of palmfibres or bast, ▣ = warp of cotton, woof of bast,
▣ = warp of palmfibres, woof of cotton, ▣ = either of cotton, palmfibres or ba
△ = Hammock used as a litter.

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BP10 Chirigua BP10
Chaco BP8
South American Indians 53

Table 3.

The distribution of the hammock.

Map. 3.

Number on the map	Names of the tribes		Cotton	Warp of cotton. Woof of bast	Warp of palmfibres Woof of cotton	Palmfibres or bast		
4	Chiriguano	Southern Bolivia	+	—	—	—?	Tupi	Also of Wool. R. M. E. 1056.
5	Chané	»	R. M. P. 1116	—	—	—	Arawak	
8	Lengua	El Gran Chaco	—	—	—	+		Father Schmidt P. 1069.
11	Chamacoco	»	—	—	—	+		»
20	Paressi		+	—	—	+	Arawak	Ruth Harbler P. 14.
21	Caingúa	Misiones	+ ?)	—	—	+	Tupi	» »
23	Churúpa	Bolivia	G. M. Tj. 56	—	—	—		R. M. Tj. 72.
25	Mojo	»	+	—	—	—	Arawak	Private Collection.
28	Bakairi	Matto Grosso	+	—	+	—	Carib	Ruth Harbler P. 13.
»	Kustenau	»	+	—	+	—	Arawak	» »
»	Auetö	»	—	—	+	—	Tupi	» »
»	Kamayura	»	—	—	+	—	»	» »
»	Mehinakú	»	—	—	+	—	Arawak	» »
»	Trumai	»	—	—	+	—		» »
31	Ojana, Trio	Guiana	+	—	—	+	Carib	Gumilla (1) P. 21.
35	Chimila	Colombia	G.M. 08-3-30	—	—	—		Rochereau (4) P. 51.
36	Ijca and Köggaba	»	—	—		G.M. 16-3-78		»
38	Tupinambá, Tupinikin, Carios	Coast of Brazil	+	—	—	G.M. 19-3-58 —	Tupi	Pigafetta P. 8, Staden T. 2, P. 8; d'Abbeville P. 203; Father Schmidt P. 1064
39	Goajiro	Colombia	—	—	—	+	Arawak	Father Schmidt P. 1070
40	Guarayú (Guarayos)	Bolivia	G. M. G. 100	—	—	—	Tupi	
41	Guarayú (Pansernas)	Matto Grosso	G.M.15-3-644	—	—	—	»	
42	Caripuna	Rio Madeira	—	—	—	+		Father Schmidt P. 1068.
43	Huanyam	Rio Guaporé	—	GM.15-3-600	—	G. M. 15-3-600		
47	Maruai	Guiana	?	?	?		Carib	[illegible] called Father Schmidt P 1067, Farabee P. 36.

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8710 Chirguano 8710
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South American Indians 53

〃	Patamona	〃	G.M. 015-16, 18-22	–	–		〃	Thalia	
6	Atorama	•					•	•	
•	Wapisiana	•	+	—	—	—	Arawak	Ruth Hamblen P. 14.?)	
48	Hianacoto	N. W. Brazil	—	—	—	+	Carib	•	•
	Wasi	•	—	—	—	+	Arawak	•	•
	Uaupé	•	—	—	—	+		•	•
	Baré	•	—	—	—	+	Arawak	Father Schmidt P. 1068.	
	Kobéua	•	—	—	—	+		•	•
51	Sirionó	Bolivia	—	—	—		G.M. 6 [illegible]		
53	True Carib	Guiana	+	—	—	—	Carib	Mocquet, P. 116., Gaillet et Richards, P. 1658	
56	Mundurukú	Rio Tapajoz	+	—	—	—	Tupi	Father Schmidt P. 1069.	
60	Apiacá	•	+	—	—	—	•	•	•
61	Uitoto, Bora, Katuhme?) etc.	Rio Putumayo and Rio Yapurá	—	—	—	+		Father Schmidt P. 1069. Whiffen P. 97.	
62	Chacobo	Bolivia	G.M. 15-16, 18-22	—	—	—			
63	Vamiaca	Pará	G.M. 03-16, 030	—	—	—			
64	Hoari	Matto Grosso	—	—	—		G.M. 111-116		
65	Baure	Bolivia	+	—	—	—	Arawak		
68	Omagua	Upper Amazonas	+	—	—	+	Tupi	Father Schmidt P. 1069.	
69	Iporina	Rio Purus	—	—	—	+	Arawak	Ruth Hamblen P. 14. Also of bark. Father Schmidt P. 1070.	
73	Angaité	El Gran Chaco	—	—	—	+		Chamicuro P. 124.	
77	Tapirapé	Near Rio Araguaya	+?	—	—	—	Tupi	Father Schmidt P. 1069.	
79	Yekuaná	Rio Merevari	+	—	—	—	Carib	Ruth Hamblen. P. 14.	
90	Acipoya, Carnahé	Between R. Xingú and Rio Tapajos	+	—	—	—	Tupi	Father Schmidt P. 1069.	
94	Chiquitos	Bolivia	+	—	—	—		My own observations.	
97	Puri	Near Coast of Brazil	—	—	—	+		Father Schmidt P. 1068.	
99	Cumanagoto	Coast of Venezuela	+	—	—	—	Carib	Father Schmidt P. 1069 (After Ruth Bunnell, Brasilien) P. 10.	
4A	Tauaré	Upper Rio Purus	+	—	—	—		Father Schmidt P. 1069.	
7A	Achagua	Venezuela	-	—	—	+	Arawak	• P. 1068?.	

[illegible] «Algunos pocos Hamos pequeños y entorchos hamorros de algodon que tejen, los que usan esos hico de cabestro ó rienda para los cristianos que de cuenta.» Amoreotti (5) P. 1017.

[illegible] «Very small hammocks are made of one piece of bark tied at the ends with a rope. Farabee, P. 20.

[illegible] «Tous les Hamacs . . . qui se font depuis la Riviere des Amazones jusques à Orenoc sont de coton». See also H. von Kloss. P. 106.

[illegible] Carib.

SiNordenskiöld E-6/1(1908-1909, 1915) 1920
SF10 Chiriguano SF10
Chaco SF8

[p.20]

South American Indians 53

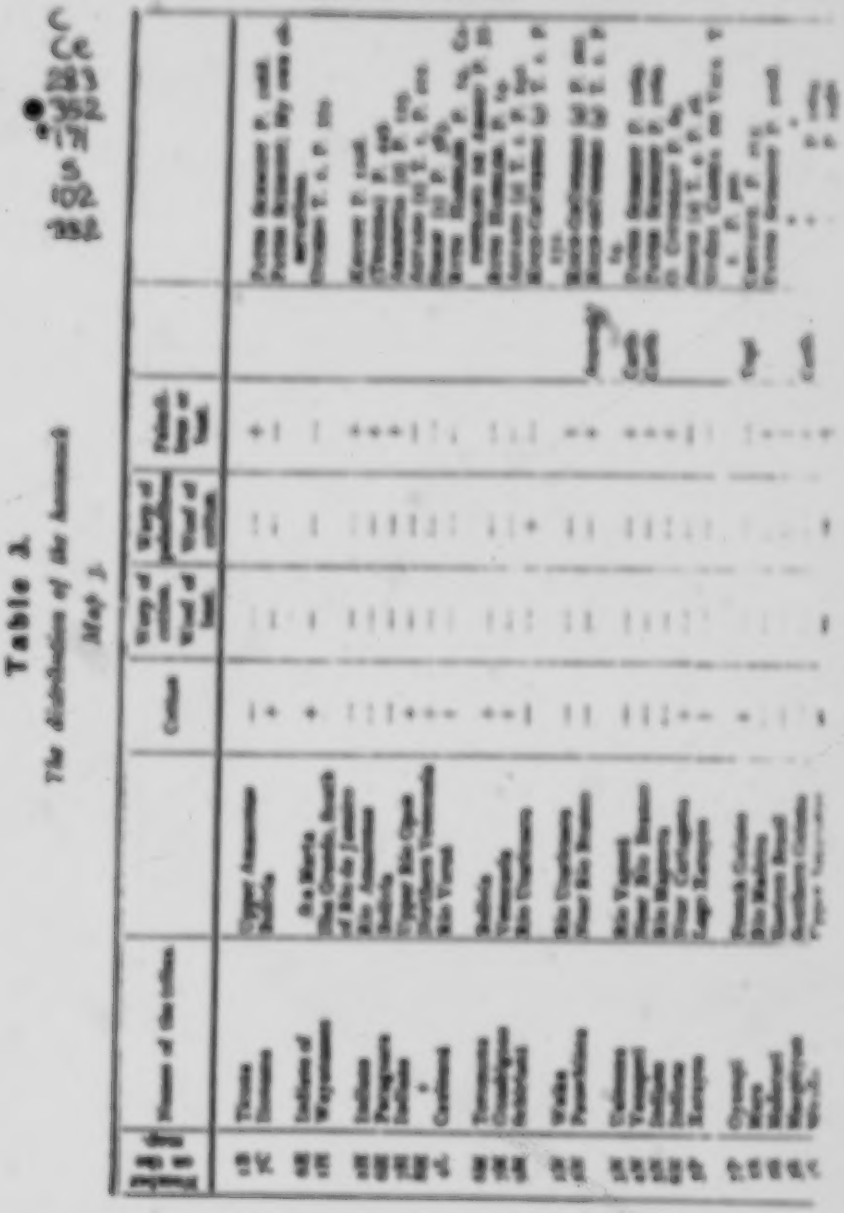

Table 2.
The distribution of the Amerind
Map 1

5th [illegible]

	Kariri	Eastern Brasil	+	—	—	+		Pater Schmidt P. [illegible].
78	Arawaks	Coast of Guiana	—	—	+	+	Arawak	" P. [illegible]. Roth (?) P. 35. Gaillet et Bachmann. P. 172.[1]
V3	Carijona	Yapura, Guiana	—	—	—	+		Mocquet P. 81.
V8	Peba	Upper Amazonas	—	—	—	?		Pater Schmidt P. [illegible].
IV	Guaná (Arawaks)	Río Paraguay	—	—	—	?	Arawak	" P. [illegible].
6V	Guaná	El Gran Chaco	+	—	—			Comminges P. 296.
XI	Yamamadi	Río Purus	—	—	—	+	Arawak	Ruth Hassler P. 14. Also of bark. Pater Schmidt P. 1070.
X4	Payaguá	Río Paraguay	—	—	—	+		Pater Schmidt P. [illegible].
8X	Warrau	Delta of Orinoco	+	—	—	G. M. [illegible]		Plassard P. 391.
X	Yuruna	Río Xingú	+	—	—	—	Tupi	Pater Schmidt P. [illegible].
67	Paraketo		+	—	—	—	Carib	" "
58	Aueuinikiu	Upper Xingú	+	—	—	—		" "
18	Incas	Peru	?	—	—	—		Pizarro P. 370[2] Xerez P. 89.[3]
100	Arebato	Río Caura	+	—	—	—	Arawak	Pater Schmidt P. [illegible].
101	Oamacan-Mongoyo	Coast of Brasil	+	—	—	—		" "
Not on the map	Chima[4]	Bolivia	G. M. [illegible]	—	—	—		
"	Uchuiri		—	—	—	—		
102	Guayupe	Llanos de Venezuela	+	—	—	+		Pater Schmidt P. [illegible].
103	Indians, Ancerma	Colombia	—	—	—	+		Acosta (?) T. 1. P. 791.
						—		Cieza de León (?) P. 89. To carry the chiefs.
Not on the map	Yaro (Charrua)	Río Uruguay	—	—	—	—		Sepp P. 51.
8X	Zaparo	Ecuador	—	—	—	+		Castrucci P. 33. Karsten.

[1]) «Les Andagues les Arastes, et la plupart des autres Nations, qui sont vers la rivière d'Orenoque font leurs lits de fil de Pite.» See also H. ten Kate P. 106.

[2]) Among these Indians I found only one small hammock that they have got from some other tribe. The Chima sleep on the floor with blankets of bark-cloth.

[3]) Pedro Pizarro says speaking of the principal woman: «Traianlas en hombros, unas en andas, otras en hamacas. Hamacas son unas mantas atadas en unas cañas muy gruesas de grueso de un brazo y más, por muy buen arte puestas, y allí iban echadas las señoras con cobertores encima.»

[4]) «Traiendo muchos indios sobre los hombros en alto y tras desta venían otras dos literas y dos hamacas.»

[5]) Also many other tribes in Moxos had hammocks of palmfibre. Charpentier y Herrera P. 67.

[p.21]

South American Indians 53

Schmidt-Bibl. B 6g (1909-1910, 1913) 1909
SP10 Chiriguano SP13
Chaco SP8

C
CC
353
415

I have not seen wooden bowls anywhere else, and scarcely think they are genuinely Indian. I shall return to the subject of baskets.

C
CC
415
237
a 171

Except among the Chiriguano and the Chané, I have only seen the scales of the armadillo used as bowls among the Mataco, and there only as a curiosity. They are, however, known from the Goyaqui[1]), from the Indians of Roraima[2]) and from Indians in N. W. Brazil[3]). The neat baskets of armadillo scales which are sold in the curiosity-shops of Buenos Aires probably hail from Paraguay, and it is not impossible that here, too, we have to do with an original Indian idea.

CC
287
278
415

The fat of various animals which is used for healing is usually kept by the Chiriguano and Chané in shells, especially those of the *Xerus oblongus*.

I shall return to the subject of calabashes.

C
352

Fig. 3. Bowl of wood from the Chiriguano. C. M. ca. 1. 1/3 n. gr.

C
442

Fig. 4. Wooden bowl. Chiriguano. B. M. N. 1/3 n. gr.

1) Krause fig. 10
2) C. M.
3) Koch-Grünberg (d)

Schmeltz-Krieger 8-4,(1899-1900, 1902) 1903
BPM Chiriguano BPM
Chaco BPM

E
Ee
291
962
a 171

way. The tipoys are, as a rule, woven. Tipoys manufactured in hammock-technique I know of only from the Siriono and the Arecuna-Indians (Tessdal). These latter are also used as bearing-bands. Probably this is also the case among the uncivilized Siriono. Tipoys in this technique are probably earlier in origin than the woven ones.

E
Ee
382
176
491
962

The word »tipoy« has also been used with another meaning, viz., for a band used to support an injured arm.*) A band or sling of the kind has exactly the same shape as an Indian bearing-band. Only once can I remember having seen an Indian with his arm in a sling like this. He was a Paressi man.

»Tipoy« can also be interpreted as kind of hammock.**)

E
Ee
352
854
962
a 171

The question is if the hammock has not also been suggested by the bearing-band. In the first place we must remember that Indians sink in different parts where the hammock is unknown, are careful not to put their babies on the ground. Then, the Yuracare and the Chimane who have no hammocks, use cradles of bark-cloth in which they suspend their babies. When the Mosetene woman goes to work in the fields with her baby, she puts it into a bearing-bag which she hangs up in a tree. Cranz(1767) mentions that he saw among the Coast Indians, who seldom use hammocks, a child which the mother had placed in a bag slung like a hammock. So it does not seem so very unreasonable to suppose that Indian women tried to use the bearing-band in the same way when the child had to be

*) I have given here as Cranz Bruno's definition of the word Tipoy »die gewand Engel, ventile de mulier. Una larga tunica con gallo de algodonero, grande cuanto una aranjas bil o de estremeno de cortar arroces de colagada o colagantes fibra, o largo o Grande para desaparar o largo, argentina de cada cuerpada por dos brazos.«

**) »En una de ellas una mujer joven que guarda una criatura, que, arrimada de dar el pecho a un niño completamente desnudo, y colocándole en una falda de red, que a manera de hamaca guarda de los brazos del indio.« P. 191.

[Text continues on p. 67]

Schwennhagen 8-5-(1909-1909, 1912) 1909
SF10 Chiriguano SF10
Chaco SF8
South American Indians 5.5

put down and they learned the snakes. The Guarayú have bearing-bands which are made in the very same technique as most hammocks. Such bearing-bands were also used by the Caribs in Southern Brasil.

Table 8.

The distribution of the tipoy. Map. 7.

1. Andirobas. C. M. Woven without seam. Wool.
2. Chiriguano. B. M. F. S. Woven without seam. Wool or Cotton.
3. Chané. B. M. P. 130. Woven without seam. Wool or Cotton.
4. Mataco. B. M. M. 186. Woven without seam. Wool.
5. Paressi. Max Schmidt (4) P. 217. Woven without seam. Cotton.
6. Moja. Cuervo P. 310.
7. Carina. Straten.
8. Guayaki (Guayaqui).
9. Guayaki (Paraguay). C. M. Woven without seam, cotton.
10. Cayuvabeque. Schmidt (1) P. 264.
11. Bakairi. Made in hammock technique.
12. Chiquito. Straten P. 341.
13. Araxandeára. (Tembé). I have gathered from Lowie's photographs that Araxandeára-girls wear quite short Tipoy in ordinary hammock technique: Rodrigues-Brandão (1) P. 42.
14. Guaraní, Paraguay. Azara (2) P. 436.
15. P. Xarayes. Rivera Cabeza de Vaca. T. 1, P. 300.
16. Payaguá. Azara (2) P. 360.
17. Indians near Lake Maracaibo. Oviedo Vol. 2, P. 389. Mujeres como indias vestidas unas sayas tenidas sin costura, que les tomaba desde la cabeza hasta los pies, e unos capillos como de frayleso.

5) Mentioned (as Pig. P. 199).

Schwedenskiöld E-5,4 (1908-1909, 1913) 1930
SF11 Chiriguano SF11
Chaco SF1

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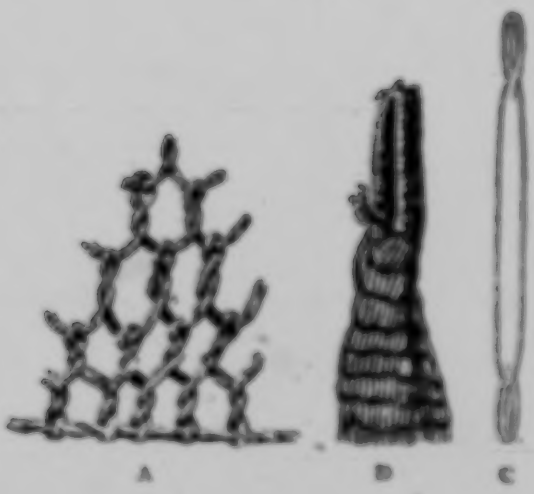

C
216
352

Fig. 40 A. Technique in a carrying-net. Chiriguano. R. M. E. pl. 9/3
B. Technique in the hammocks Chiriguano. R. M. E. copl. 9/5
C. Frontlet to a carrying-net. Chaco. Rio Paraguai. R. M. P. 107.
D. Technique in C.

Schmeltz 1-4,c(1900-1908, 1913) 1910
Ch 371 Chiriguano Ch 371 ●
Chaco Ch 1

XXIII.

Various kinds of handicraft besides pottery.

Knitting-technique.

C Ce 286 Respecting the occurrence of different kinds of knitting technique among the Chiriguano and Chané I have little to add beyond what was mentioned in the English edition of Part I of this work.

C Ce 286 ● 352 Ch 371 The hammock-netting is the usual technique which gives the so-called barred hammocks (See Part I) which are widely distributed in all S. America north of El Gran Chaco. They are found almost universally where hammocks occur. Occasionally one sees among the Chiriguano and Chané bags knitted in the technique which in Part I I denoted by No 3. These bags are never made by themselves, but are obtained from the Mataco, Tapiete, or some other Chaco tribe. During my archaeological excavations at Iguembe I found a piece of pottery with impressions of knitting evidently done in this technique.

C Ce 284 286 293 The carrying-nets and most dip-nets of the Chiriguano and Chané are made with reef-knots. The Chiriguano have also dip-nets knitted with sheet-knots. For carrying-nets and dip-nets they Chiriguano and Chané generally use ca-raguatá bast. «Yuchan» is seldom used[1])

Spinning.

C Ce 283 Regarding the spinning of the Chiriguano and Chané there is little to add beyond what I mentioned in Part I.

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[1]) Chaniste enclosure.

G: Nordenskiöld--26 E-5 (1908-1909) 1913 SF10 Chiriguano SF10
Chané SF9

C
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592

/176 cont./
of the daughters, who, during the betrothal and at the beginning of the marriage, live with the mother-in-law. In front of the hut is the large hearth (Ill. 62) where the maize beer, and sometimes also the food, is cooked. /Fig. 84b appears here./ Inside the hut there is likewise a hearth where cooking is done and where one seeks warmth on cold nights and days.

C
Ce
592
354

Ce
342
411
419
293

Fig. 62. Hearth for boiling maize beer. Chané village. Río Itiyuro. To the right in the picture, large vessels in which the maize beer ferments. The house is plastered with earth.

C
Ce
342
122
136
352
513
CBB

I have slept in these huts many a night. They are, as a rule, free of vermin, which cannot be said of the dwellings of all other Indians and of the houses of the whites. The sleeping place either consists of a bed made of a species of bamboo cane, or one lies /Plate 16 appears here/ /177/ on the ground on a reed mat or a skin. One also sees hammocks in the huts.

Gr Nordenskiöld--27 E-5 (1908-1909) 1912 SF10 Chiriguano SF10
Chaco SF8

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/177 cont./One also sees hammocks in the huts but they are not common. The hammock is native to tropical South America, but it disappears toward the south and in the mountains, for there it is too cold to use it. /Fig. 85 and 86 appear here./

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Fig. 94a. Maize granary. Charé. Río Bíyuro.

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From the roof of the hut, on hooks and racks, hang clothing and provisions, medicine, and other things. Here the men also keep their bows and arrows, their drums, and similar things. Maize ears are hung by liana loops.

6: Nordenskiöld--30 E-5 (1908-1909) 1912 SF10 Chiriguano SF10

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Fig. 85. Seat. Chiriguano. Tarairi. 1/5.

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Fig. 86. Hook for hanging things.
Chiriguano. 1/6.

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/178/ Now and then one sees a seat carved out of wood (Fig. 85) in a shape especially familiar from the Brazilian Indians.

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A great many clay vessels of all dimensions are always standing along the walls of the huts. Some of them are so large that a man could crawl into them. There /179/ are pots, there are

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Fig. 87. Chané woman. Rio Parapiti. She has a water jug in the carrying net.

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roasting bowls, there are handsomely painted vessels which are brought out for the festivals, and there is the treasure pot, in which the housewife keeps all the valuables and souvenirs of the family. In it, if the home is "well-to-do," lie clothing,

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/214 cont./

entirely untouched by the civilization of the whites, an opinion which I shall reproduce here verbatim:

"Ce qui m'a fort surpris, c'est que dans la licence où ils vivent, je n'ai jamais remarqué qu'il échappat à aucun homme la moindre action indécente à l'egard des femmes, et jamais je n'ai oui sortir de leur bouche aucune parole tant soit peu déshonnête

Fig. 111. The Chiriguano chief Mandepora.

/What surprised me very much is that in the freedom in which they live I never noticed the slightest indecent behavior on the part of any man with regard to women, and never did I hear from their lips any word that was the least bit immodest/."

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Fig. 190. Woman in front of her hut. In the foreground a bedstead on which lies chewed maize; this maize is used in the preparation of 'chicha', an intoxicating beverage. Chiriguano. San Luis. Bolivia. Photo. E. v. R.

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Fig. 191. Huts in the periphery of the circular market-place in the Chiriguano village of Ibitiki. In right foreground, a ladder used on going to the pile-huts for maize. Bolivia. Photo. E. v. R.

(193)

[P. 194 is blank]

experiment carried out at Rockelstad in the summer of 1919[1], the» stone-age men» soon found themselves compelled to build a »lave» so that the goats should not damage such foodstuffs and implements as had to be kept outside the hut.[2]

It is my belief that the »lave» has also supplied the idea of building dwelling-houses on pole-supports. Wherever people in a certain stage of civilization have found themselves settled on solid ground, they have had need of raised food-platforms, partly for keeping their foodstuffs safe from damage on the part of domestic as well as noxious animals, partly for the purpose of drying, smoking or roasting the food (see pp. 38, 47 and 48). If such a people, living on the edge of a lake or a swamp, had wished — for defensive purposes or some other reason — to build their dwelling-huts or other buildings in the water, then, if the bottom of the lake afforded good holding for piles, such buildings would have been constructed in the same way as the food-platforms or pole-supported granaries previously employed on firm ground (compare fig. 28 with fig. 115). Where the people in question has been lacking in sufficient skill to construct large pile-buildings in the water, or if the lake bottom was unsuited to this mode of construction, then huts were built on raft- or quagmire islands, after the manner of the swamp dwellers of Alvastra and Bangwenlo.[3]

The furnishing of the Chiriguano huts is exceedingly plain. The fire-place, which forms a very necessary heating centre at night during the cold season, consists of a few stones serving as supports for the cooking pots. There is no hole in the roof for letting out the smoke, which has to find its way out through the doorway or through fissures in the walls. As a rule, the food is generally cooked on a fire outside the hut (fig. 189).

Bedsteads of the type seen in fig. 190 are to be found in nearly every hut. These bed frames are made of laths or reeds, and are covered with skins. Nordenskiöld states as his opinion that the idea of these bedsteads has not been borrowed from the civilization of the whites.[4] In the analytical treatise he has written upon this question he adduces conclusive arguments for his opinion, as it seems to me. In Central Africa, one finds bedsteads that are very similar to the Indian ones,[5] and that certainly have not

[1] Klein, pp. 88—89.
[2] Klein (1).
[3] For lake- and marsh dwelling-places in different parts of the world, see Montelius (1).
[4] Nordenskiöld (18), pp. 8—12.
[5] von Rosen (6), p. 403.

18. — o. Rosen. II.

352 [119] [171] [513] been imitated from the Europeans. The Chiriguano also sleep in hammocks made of cotton yarn, and on reed mats and skins spread on the ground. Stools for sitting on I have not observed among the Chiriguano. They do, however, possess such articles of furniture,[1] which, however, must be of 353 considerable rarity. Along the walls of the hut will be seen an orderly 415 array of cooking and roasting pots, water pitchers, and pots for maize [531] beer, arranged in rows, often of exceedingly beautiful shape and with painted decoration (figs. 217—223). From wooden hooks in the roof are hanging bunches of maize cobs, pumpkins or other foodstuffs, arrows, bows, and other gear. From the roof there are also suspended clay bowls (figs. 224 and 225), used as repositories for smaller articles of value. Clothing, ornaments, and such like, are also stored in large clay jars placed on the ground. As bowls there are also used the scaly skin of armadillos, and calabashes (fig. 226).

[352] [291] [302] [411] [415] [237] [824] 354

Fig. 194. Man and young woman, Chiriguano. San Luis, Bolivia. Photo. E. v. R.

Outside every hut there is, as I mentioned, a fire-place which is generally used for cooking the food, unless the weather makes this impossible. The huts, as well as the open spaces between them, are kept particularly neat and clean. They are swept every day, and the sweepings are burnt. The huts are practically always free from vermin.

356 291 [177] The Chiriguano men nowadays generally wear shirt and trousers of European cut (fig. 194). The poncho shirt is, however, still to be met with among this tribe[2], but only very rarely, and I have never personally

[1] Nordenskiöld (18), p. 183 and fig. 83 (18), pp. 15 and 16, and fig. 3.
[2] Nordenskiöld (18), p. 30.

8: Schmidt--40 E-5 (1935) 1938 SF10 Chiriguano SF10

Plate VI

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Fig. 14
(I.C. 356) -- Chiriguano women and children in front of their house in Machareti

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Fig. 15
(I.C. 358) -- Chiriguano in the town of Machareti

St Schmidt--54 E-5 (1935) 1938 SF10 Chiriguano SF10
Guarani SM4
Chane SF8
Izozo

Body Care and Rest

The Izozó in Toledo and the Chiriguano in Machareti offer a contrast with the Indians of the Chaco whom I visited in that they are relatively clean. We must recognize that this cleanliness, which has also been praised by other authors, occurs despite the fact that a great many of them live in regions with very little water and where often the quantity cannot satisfy the necessities of cleanliness except with great difficulties. According to Nordenskiöld, they bathe several times a day and often directly after eating. After meals they wash their mouths and their hands (89).

89. Nord. I, pp. 180, 19 /the third figure of this page number in the 190's is illegible/, 203, 204.

For sleeping, the ancient Guaraní commonly used the hammock. "The sleeping hammock which they hung from two pillars in the dwelling was characteristic of the Guaraní," says Serrano of the Guaraní of the ancient Province of Uruguay (90). The Chiriguano and Izozó still have hammocks

90. Antonio Serrano, op. cit., p. 120.

today, but these are not commonly used and serve less for sleeping at night than for resting during the day (91).

91. Cf. Nord. I, p. 177. Nord. 2, p. 9. Métraux I, p. 470 and Plate 88.

8: Schmidt--55 E-5 (1935) 1938 SF10 Chiriguano SF10
Chané SF8
Izozo

/22 cont./

C 352 [126] Hammocks (Chiriguano: hía; Izozóc inî) in the Collection

I. A. 448. Chiriguano. Wool. Length 220 cm. Width 75 cm. (Fig. 102b).
I. A. 449. " " " 105 cm. " 60 cm.
I. A. 450. " " " 285 cm. " 60 cm. (Fig. 102a).
Ce [126] [352] I. A. 360. Gift of Mr. Teodoro Rojas. (Chané of the Parapití.) From Caraguatá. Length 320 cm. (Fig. 102c).

C 352 286 The hammocks that I acquired among the Chiriguano in Machareti were all made of wool, as were the hammocks that Métraux saw among the Chiriguano (92). According to

92. Métraux I, p. 470.

Nordenskiöld (93), Chiriguano hammocks are commonly made

93. Nord. 2, p. 12.

C 286 352 126 of cotton and only incidentally of wool. Of the three large hammocks in the collection, two (I. A. 448 and 449) were plaited with the technique very common among the Indians of South America, which in my publication on the Guarayú, which appeared in this same journal, I called "double thread plaiting" (Doppelfadengeflecht) (94), while one (I. A. 450) shows the

94. Cf. Fig. 102b /see p.174/.

Ce 286 352 [126] structure of a piece of weaving. (Cf. Fig. 102a) From the Chané the Museum's collection has hammock I. A. 360, which Mr. Teodoro Rojas acquired among the Indians of the Parapití River and presented to the Museum. (Fig. 102c.) This hammock was made of caraguata fibers and with a netting technique. According to Nordenskiöld, in addition to such hammocks of caraguata fiber the Chané have others made of cotton, on the technique of which we have no information. With regard to the details of these Chiriguano and Chané hammocks, I refer to the chapters dedicated to the description of the technique of plaiting and the technique of preparing netting.

C Ce 286 352

/22 cont./

352 513 [251] The Chiriguano generally sleeps on a kind of cot (catre), that is, a bed frame made of cane. Such beds, which in addition to their own purpose also serve for drying maize, have been represented in drawings by Eric v. Rosen (95), Eriand

95. Eric v. Rosen, op. cit., p. 196.

[174] [175] v. Nordenskiöld (96), and Métraux (97). No doubt /22/ the

96. Nord. 2, Fig. 2.

97. Métraux 1, Fig. 128, p. 470.

cold climate of the region to which the Chiriguano had emigrated made them abandon the use of the hammock for sleeping, not very practical for such a climate, and replace it with the cot, which was already common among the tribes of those regions. Lacking a cot, the Chiriguano sleep on the ground. [232] [324] [126] [324] In that case they use for a bed large mats made of cane or palm leaves, or also hides (98). I acquired from the Chiriguano one

98. Nord. 1, p. 177. V. Rosen, op. cit., p. 200. Métraux 1, p. 470.

such mat plaited out of palm leaves (Fig. 96).

Chiriguano Mat (túpa) in the Collection

I. A. 540. Length 1.75 m. Width 1.50 m. (Fig. 96).

352 [7] [126] In some Chiriguano houses I also saw wooden benches (apika), but unfortunately I could not acquire a specimen. Those benches in the form of a sled are very similar to the kind of benches that are very common among the Indians of Brazil (99) and those that we also know from the ancient

[113] 99. Carly /sic/ von den Steinen: Unter den

R Schmidt--87 E-6 (1900) 1908 SP10 Chiriguano SP10
Chané SP8
Izozo

/23 cont./

Naturvölkern Zentralbrasiliens /Among the Primitive Peoples of Central Brazil/. Berlin. 1994. p. 286.

Peruvians (100). Nordenskiöld and Métraux show such

100. Max Schmidt Kunst und Kultur von Peru /Art and Culture of Peru/. Berlin. 1929. p. 436.

Chiriguano textiles in drawings (101).

101. Nord. 1. Fig. 65. Métraux 1. pp. 471 and 472 and Fig. 128.

Painting and Deformations of the Body

As the use of clothing has increased among the Chiriguano and Chané, the custom of painting or tattooing the body has naturally lost importance and the remnants of such customs are too few to be able to say what they were in the past. Nor do we have data on this. I often saw Chiriguano and Ioné women and girls paint themselves with urucú, making colored spots on their faces. According to Nordenskiöld, men and women sometimes paint their faces, as well as their bodies, with red paint (102). Nordenskiöld also found tattooing on

102. Nord. 1. p. 203.

the arms of some women and one Chiriguano man (103). The

103. Nord 1. p. 203. Nord. 2. p. 63. Fig. 27.

custom of dyeing the teeth with dark blue was found by

--166 E-5 (1935) 1938 SF10 Chiriguano SF10
Chane SF8
Izozo

Ea 256

/to cont./

There may be variations in these braids according to the difference in the number of skeins plaited and the number of strips which are passed each time by one strip of the braid, as Figures 128-[illegible] show /see p.201/. The greater the number of skeins in the braid, the more the form of one string of the braid takes on the appearance of a band. Cf. Figure 32 a and b /see p. 62/.

Ca [171]

To the second of the four kinds of plaited objects into which all the plaited objects of the South American Indians can be classified belong those which are plaited in such a way that one row of sticks, threads, or similar things are united so that a double thread passes the row, continuously or at certain intervals, and in such a way that the two individual threads of the double thread encircle in each rotation one or more of the little sticks or threads of the row.

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Among the objects plaited by this technique there are two Chiriguano hammocks and one Izozó saddle covering in the collection.

Ob 492 256 126

Objects Plaited with Double Thread, from the Collection

I.A. 448. Hammock (Chirig.). Wool. Lgth. 2.60 m. Width 0.75 m. (Fig. [illegible] and 109.)
I.A. 449. Hammock " " " 2.05 m. " 0.60 m. (Fig. [illegible].)
I.A. 846. Saddle covering (Izozó) " 1.21 m. " 0.57 m. (Fig. [illegible] and 129.)

C 352 256

The threads of the hammocks mentioned above are made of wool and that applies not only to the warp threads but also to the double threads. The manufacture of these hammocks is explained in two schematic drawings shown in Figures 109 and 110 /see Figs. 127 and 128, p.190/. The diagram in Figures 109 /Fig. 127/ shows the place in hammock I.A. 448 where the double thread begins to pass through the row of warp threads. The arrangement of the warp threads can be explained only by the manner in which a warp of one continuous thread was made first and in the form of a sleeve, /65/ as the warp of weavings done on a loom

0: Schmidt--187 E-5 (1935) 1936 SF10 Chiriguano SF 0
Chaco SF 8
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/85 cont./

is made. The double threads, when they pass through the warp threads, encircle with each loop caused by their rotation one thread of the front side of the warp and one thread of the back of the warp. Only at the side edge do they encircle, as Figure 109 /Fig. 127/ shows, three or four threads with each loop. The double thread which begins at the right side of the diagram runs through the entire width of the warp in the way shown in the diagram. When it arrives at the other side, the double thread does not turn around to pass through the warp in the opposite direction, but its ends are fastened, and at set distances other double threads pass through the warp in the same way as the first. Hammock I. A. 449 shows the same arrangement of threads and warp, and the double thread passes through the warp in the same manner, except that at the side edge too it encircles only two threads of the warp, and in this case too one thread of the front side of the warp and one thread of the back side of it. See the diagram shown in Figure 110 /Fig. 128/.

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The Izozó saddle cover mentioned above shows a peculiarity inasmuch as the double threads are compressed, one beside the other, in such a way that they form a compact material in which the warp threads disappear under the double threads. Likewise in this saddle cover two warp threads are encircled by each loop of the double thread, and more threads only at the two sides. But one difference from the hammocks plaited with double thread is that the double thread, after having passed through the warp threads from one side to the other side, returns in the opposite direction, passing through the warp threads. Another peculiarity is that each of the consecutive rows of the mesh of the double thread shows an opposite direction each time, as a result of which there appears a kind of decoration on the surface, consisting of stripes. As the diagram in Figure 111 /Fig. 129; see p.190/ shows this peculiarity is produced by the special way in which the outer warp threads are encircled by the double thread.

R Schmidt--174 E-5 (1933) 1938 SF10 Chirigwano SF1o
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Plate XXVIII

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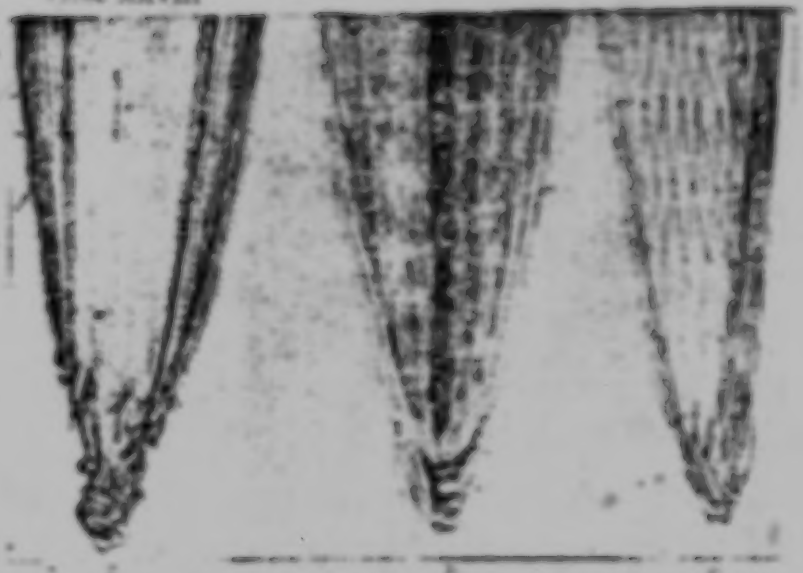

Fig. 102

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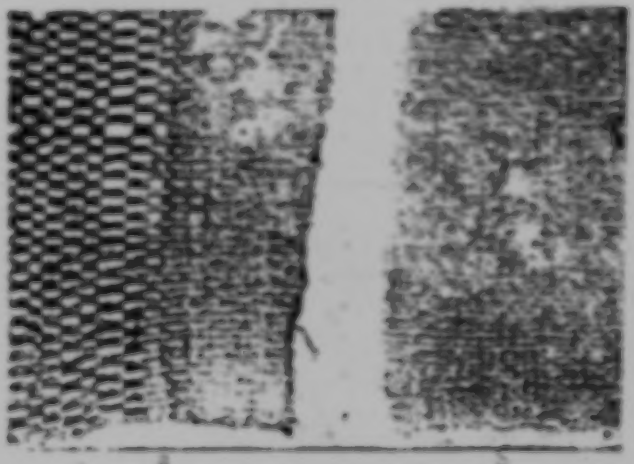

Fig. 103

/The captions appear on p. 175./

M Schmidt--175 E-5 (1922) :336 SF10 Chiriguano SF10
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/Captions for Plate XXVIII/

Plate XXVIII

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Fig. 107. Hammocks

a (I. A. 436). Hammock of wood, woven (Chiriguano). Length 2.65 m.;

b (I. A. 448). Hammock of wood, plaited (Chiriguano). Length 2.60 m.;

c (I. A. 350). Hammock of cotaguata, made with netting technique (Isoseis). Length 3.50 m.

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Fig. 108. Saddle covers (Isoseis)

a (I. A. 847). Woven saddle cover. Length 1.42 m., width 1.42 m.

b (I. A. 846). Saddle cover plaited with "double thread." Length 1.21 m., width 0.37 m.

St Schmidt--186 8-8 (1800) 1038 6710 Chiriguano Of 2
Chaco 368
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/71 cont./

Weavings Made without a Special Mechanism for Making the Divisions of the Threads of the Warp, from the Collections

I.A. 450. Hammock (Chiriguano) of wool. Length 2.85 m. Width 1.52 m. (Fig. 102a.)

I.A. 768. Carrying net provided with a woven carnguara band (Isoso). Length of band 69 cm. (Figs. 135 and 137.)

I.A. 807. Band for a carrying net (Isoso). Carnguara. Length 69 cm.

With regard to their exterior structure too, the bands with which many of the carrying nets (of the Isoso and some of the Chiriguano ones) and one Chiriguano hammock are provided are similar to the weavings. But these /Plates XXXII-XXXV appear here/ /71/ objects are made without any special mechanism for making the divisions of the warp threads.

Figure 135 shows the structure of the band of the net I.A. 768. (Cf. Fig. 133 /see p.744/.) The diagram shows the way in which these bands are made. First the longitudinal threads are stretched in a way similar to the manner of stretching the warp threads of common weavings between the horizontal poles of the frame of the loom, but without using the special thread extended between the two vertical poles of the loom. Then they pass a transverse thread, which corresponds to the woof thread of common weavings, through the two rows of longitudinal threads alternately from the right to the left and from the left to the right, in such a way that this thread is left alternately under one thread of the back row of longitudinal threads and on top of one thread of the front row. Thus the manufacture of these bands and of hammock I.A. 450 is different from that of common weavings principally in the fact that the woof thread passes simultaneously through the threads of the front side and of the back side of the warp. Sundry irregularities in the course of the threads of the warp show that weavings of this kind have been made without using a mechanism for making the divisions of the warp threads.

G. Schmidt—ZM 8-6 (1889) 1938 SF 0 Chiriguano SF10
Chané SF8
Izozo

Nets of the Collection That Are Made with the Technique Called "Knotenknüpfen" in German, Using the Knot Called Reef Knot in English

I.A. 760. Hammock (Tié) (Chané of the Parapití). Caraguata.

Gift of Sr. Teodoro Rojas.

Length 2.50 m. (Fig. 135c.)

I.A. 762. Hammock (Izozó). Caraguata. Length 1.80 m.
I.A. 796. " " " " 2.70 m.
I.A. 646. Net for carrying loads (Chiriguano). Wool. Lgth 1.05 m.
I.A. 647. " " " " " " 0.75 m.
I.A. 561-566, 567, 569-571. Nets for carrying loads (Chiriguano). Caraguata. Length between 1.50 and 0.50 m. (I.A. 567, Figs. 134 and 143; I.A. 566, Fig. 144.)
I.A. 767-787; 789-792. Nets for carrying loads (Izozó). Caraguata. Length 1.60 m. and 0.65 m. (I.A. 768, Figs. 133 and 142; I.A. 772, Fig. 135.)
I.A. 785. Bag (Izozó). Caraguata. Length 0.82 m. Height 0.48 m.
I.A. 788 " " " " 0.62 m. " 0.62 m. (Fig. 136.)
I.A. 780. Quadrangular net (Izozó). Caraguata. Length 0.90 m.
I.A. 794. Implement for fishing with net (Izozó). Length 73.5 cm. (Fig. 39.)
I.A. 795-801. Nets for implements such as I.A. 764 (Izozó). Caraguata.
I.A. 360. Sling (Chiriguano). Caraguata. Length 15 cm.
I.A. 369. " " " " 14 cm.

From the large size of the mesh of nets I.A. 360, 766, and 796, it follows that they are hammocks. Because in Chiriguano and Chané territory there are generally no fish except small ones, nets for fishing must have considerably smaller meshes.

Of the Chiriguano nets for carrying loads, two are made of wool and one of these has a band like most such nets from the Izozó. The rest of these nets from the Chiriguano and the Izozó are made of caraguata thread. Some of them have a rather small mesh, but among those of the Izozó those with big mesh are the rule.

R Schmidt--206 E-S " (1905) 1906 SF10 Chiriguano SF10
Chaine SF5

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We must still note that the Chiriguano and Chané transport fish in the same way as the neighboring tribes of the Chaco, by stringing them on a cord provided with a big wooden needle (795).

795. Nord. 9, p. 45.

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Implements for Storing Objects

Most of the objects that serve for storing things have also been mentioned in preceding chapters, such as the various kinds of baskets and the wooden hoops which are hung in the houses for storing sundry things in them. The net bag and the carrying net do not serve only for carrying, but also for storing things in them. Baked clay vessels are not only used for storing liquids, but are also used for storing many other things which have a special value or are old memorabilia of the family (796). Furthermore,

796. Nord. 1, p. 179.

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[237]

they put up special hooks for hanging various things in the houses. Such a hook is shown in a drawing by Nordenskiöld (797).

797. Nord. 1, p. 177 and Fig. 86.

and Métraux shows such a hook made of a deer's leg (798).

798. Métraux I, Fig. 128.

Art

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Flutes and a Whistle in the Collection

I.A. 491. Flute, "sererê" (Chirig.). Wood. Lgth. 17 cm. Width 2.7 cm. (Fig. 33b.)

I.A. 492. " " " " " 20 cm. Width 3.5 cm. (Fig. 33a.)

I.A. 493. Flute (Chiriguano). Cane. Length 43 cm.